First Dry Run for RHIC d-Au Run 8

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1   Tue 9 Oct 2007

1. EventLinkDisplay ckecked and fixed (Waldo, John Morris).

2. PrintUtility checked and fixed (Waldo, Todd).

3. Permit checkout was not possible at this time because V115 WFGs are being modified with new MRAM memory modules (Rob, Bill Venegas).

4. GPM called BeamIons was created with d intensity scaled down by a factor of 100 (Todd). Other monitors that need to be treated this way are RHIC/DebunchBeam.mon, RHIC/WCM/BeamFillPattern.mon, and RHIC/WCM/Blue/FillPattern.mon (Todd).

5. Plotfill works from StartUp (Todd).

6. LogView of the current BeamIons file works, and displays the correct y-axis label for d and Au (Todd, Roger Lee).

7. FDAView works and displays data on both axes (Todd). The program that adds injection statistics to the FDA database (calcInjEfficiency) may need some minor revisiting; will wait until we have beam before checking that out (John Morris).

8. LogView checked out (Ted).

9. Plots of Blue (d) and Yellow (Au) DCCT and WCM are now scaled properly (Roger Lee).

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10. Logging Servers are working. For now just two servers. We will be running four logging servers (hopefully before the next dry run). Which server is used to log which data is transparent to the user. You can start or stop loggers without being concerned about which logging servers are running. Logging Server Checkout Complete (Roger Lee).

2 Wed 10 Oct 2007

1. Tested jumpwatch; it doesn't work because 9c-ps1 is down. 9c-ps1 doesn't boot, but 9c-bpm1 is up, so these FECs are probably turned off (Todd, Christoph). 9c-ps1 and 9c-ps2 are down because they are in the middle of having their wfgs upgraded. The old wfgs were taken out. The new wfgs (with radiation resistant MRAM) were delayed in delivery. They should be in by next week. p.s. 7A, 7C, and 9A have the MRAM wfgs installed already. 9C is the last location to be done before the RHIC run (John Morris).

2. Blue and Yellow injection kickers work, but there is no BLM data, no WCM data, and no bunch timing versus AGS extraction kicker (Sev, Arlene, Wolfram).

3. After some minor intervention, all ring and ATR BPMs are up except for those in 2a; that FEC is down (Todd).

4. Blue BPMs appear to trigger on a bsb-tbtstart event, which is good. Yellow BPMs mostly do the same (Todd).

5. WCM is working. Tape switched to Injection, to Store, and back to Injection. Tape put store picture in Booster-AGS-dAu elog. Blue charge state = 1; Yellow charge state = 79 (Roger Lee).

6. Button BPM Scope is waiting for beam. DCCT (BCM) has simulated Blue data. Electron Detector Scopes are waiting for data. 2B-EDS2 (high voltage for detectors) needs to be turned on (Roger Lee).

7. Configuration control has been examined and updated for those RHIC and AGS parameters which have been determined. Some parameters are still TBD (Greg Marr).

8. Artus delivers data on Measure Tune Event (Rob).

9. IPM delivers data on snapshot event (Rob).

10. Looked at BFT application (Larry Hoff). Checkout complete?

11. Looked at Blue and Yellow, Horizontal and Vertical BBQ with test resonator (Al Dellapenna). Checkout complete?

12. 10 Hz Correction system at 8 o'clock is in the ON state. The 6 o'clock system's magnets have been removed for the bakeout, so that system can't be tested (Christoph).

13. Both blue and yellow vacuum display are fine (Haixin).

14. Tested RHIC polarimeter system. Two problems were found. First problem was due to missing files on the polarimeter pc. This was resolved by copying these missing files into the proper location. Second problem is most likely due to firewall issues. The PolarServer is set to run on acnlin88. The polarimeter pc is in the 111 subnet and can not communicate with the server on acnlin88. We confirmed this by moving the PolarServer to acnlin89. This worked (Seth, Mike S, Haixin, Ron G).

3   Thur 11 Oct 2007

1. Tested the Skew Modulation code. Couldn't get the magnet wiggling commands to WFGman. PLL readings are noise. The application has not changed since two years ago. We only use it when we verify the skew quadrupole coupling angles (Yun).

2. ATR BPMs are back online after Phil Cerniglia swapped out an AC reset module. There are still some perplexing things (like large Acorr/Bcorr in wbh7 without beam) that need to be checked out (Todd).

3. Looked at Blue orbit correction for injection stone for normal lattice ramp. The correction works fine. The communication between the OrbitDisplay and RampManager and Online model is OK (Vadim). Tested the orbit correction for IBSS-lattice ramp (dAu80). The correction works fine. Interprogram communication are OK (Vadim).

4. Store optics in place for the dAu80 (IBSS) and dAu81 (normal lattice) ramps (Steve T).

5. Tested IRbump features by retrieving old data and fitting (Fulvia, Sev).

6. Sextupole tune shift calculation due to orbit correction works fine in RhicOrbitDisplayV2 (Vadim).

7. Ran test hysteresis ramp from RHIC/Ramp/NoBeam in sequencer. This worked just fine (TJS, LH, LA, ST).

8. Rhic Abort System: Following the ramp (thanks Larry, Todd), some items: The yellow readback is far below the reference; difference between blue and yellow references should reflect difference between d and Au store rigidity; one voltage readback (blue channel 5) has no signal (the kicker does fire judging from the current traces); one scope - blue1 - is not triggering when the dump occurs (Leif).

9. The MCR 4/5/6 comfort displays start on the wrong displays! They start on LCD screens over 4p and 6s rather than the large displays over 5p/5s (Todd).

10. Ramp test for dAu80 looks good – compare dAu81/dAu80 ramps in the left plot. We are also getting stones (right plot) so things look pretty good (TJS, ST, LH).

11. Collimators, orbit correction, rebucketing, auto-lisa, and cogging all had issues. Other than that, the up sequence looked pretty good (TJS, ST, LH).

12. BeamIons logger is seeing ramping events like stones, accramp, lumi, etc (Todd).

13. RampManager now working, able to test with live data. Looks good. Getting tune and bump data. Also tried with Yellow; No tune data; otherwise okay (Sev).

14. Skew Modulation application is working although the collected tune data are garbage. The test is done (Yun).

15. RhicChromaticity correctly complains about the collimator on Blue and prevents the measurement. Will measure on Yellow. Result of running in Yellow ring (Steve T):

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(a) Artus has responded.

(b) BBQ is off.

(c) RF frequency did not change during this test.

(d) I didn't get BPMs for a dispersion measurement.

(e) Circumference is incorrect for a dAu ring (correct for equal species).

(f) Tune is correctly below 0.5.

Note, with the current configuration, design dispersion is not shown if there is no BPM data to calculate the dispersion. During measurement, the BPMs and Artus switch to the 4Sec event. After the measurement, they return to there previous states, as it should (Steve T).

16. Checked the QDmin application. It got signal/noise from BBQ blue and Artus Blue and yellow. No signal/noise available from BBQ yellow (not on) and Schottky (Joanne Beebe-Wang).

17. Set up the transformers in AtR for deuterons. Took values from the earlier dAu run. How do we change these when we switch between d and Au? Maybe TAPE? These appear not to be PPM (Leif).

18. Set the BLAM 50% 90% trip levels appropriate for deuterons and gold (Leif).

19. The "energy" in this file is total energy at injection, (just the definition). We take these values from Kip's note for this year's running. The 50% levels are unchanged from FY03 as of now (Leif).